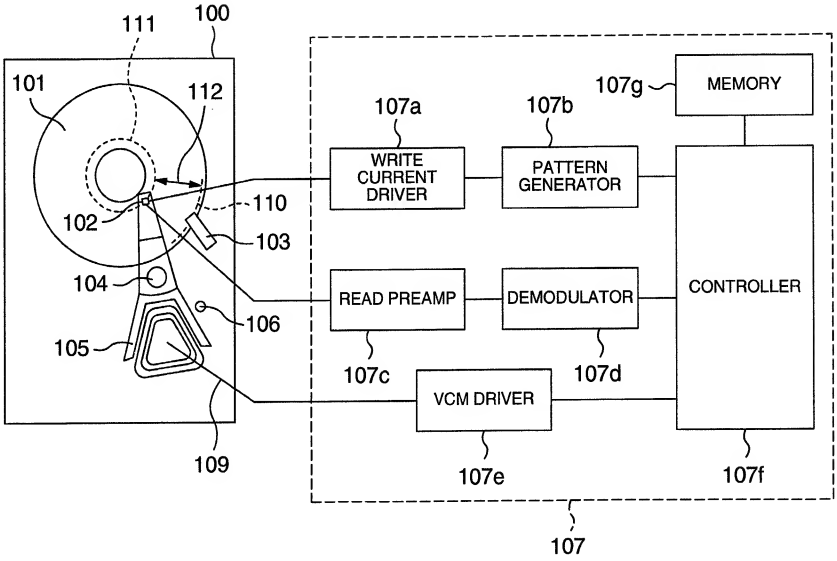
FIG.1


111
100
101
112
102
110
103
104
106
105
109
107a
107b
107g
MEMORY
WRITE CURRENT DRIVER
PATTERN GENERATOR
READ PREAMP
DEMODULATOR
CONTROLLER
107c
107d
VCM DRIVER
107e
107f
107

W 0161

FIG.2

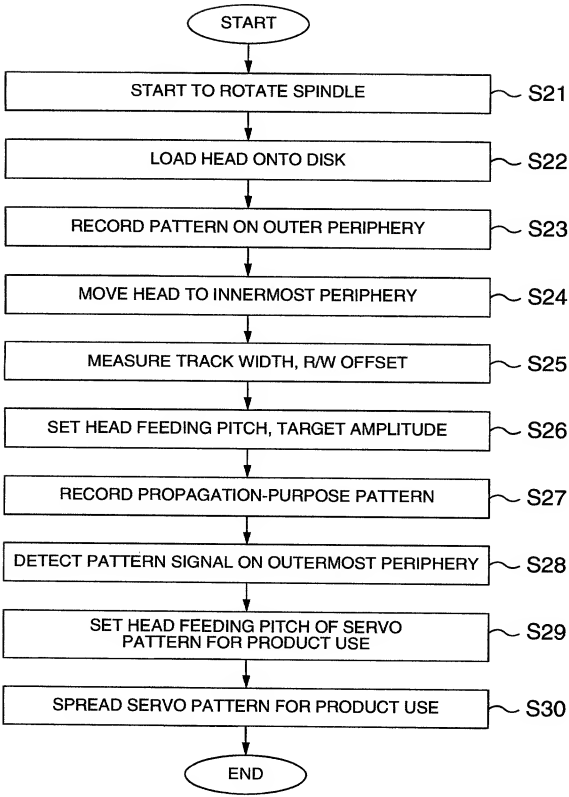

START
START TO ROTATE SPINDLE
S21
LOAD HEAD ONTO DISK
S22
RECORD PATTERN ON OUTER PERIPHERY
S23
MOVE HEAD TO INNERMOST PERIPHERY
S24
MEASURE TRACK WIDTH, R/W OFFSET
S25
SET HEAD FEEDING PITCH, TARGET AMPLITUDE
S26
RECORD PROPAGATION-PURPOSE PATTERN
S27
DETECT PATTERN SIGNAL ON OUTERMOST PERIPHERY
S28
SET HEAD FEEDING PITCH OF SERVO PATTERN FOR PRODUCT USE
S29
SPREAD SERVO PATTERN FOR PRODUCT USE
S30
END

FIG.3A

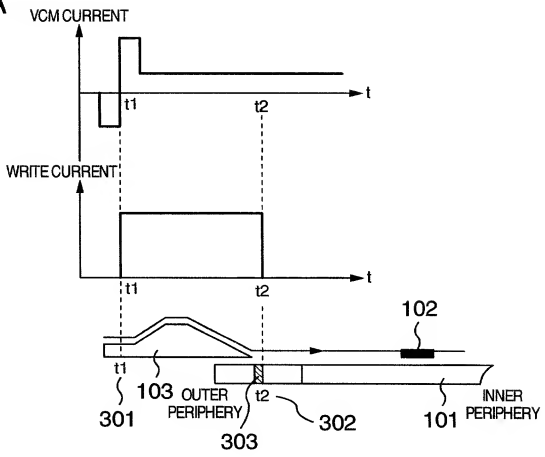


FIG.3B

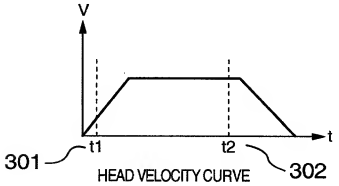


FIG.3C

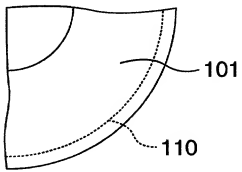


FIG.4

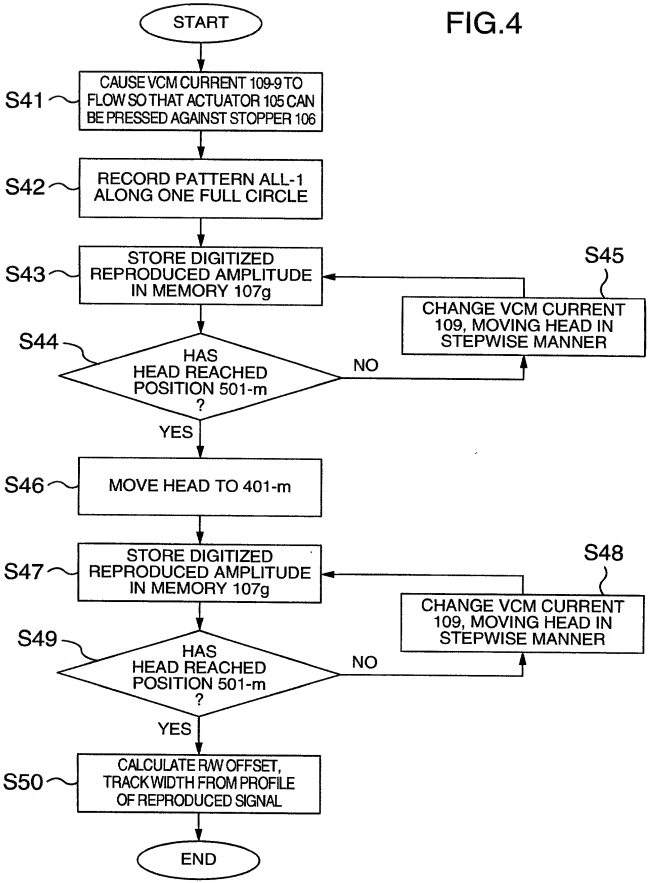

START
S41
CAUSE VCM CURRENT 109-9 TO FLOW SO THAT ACTUATOR 105 CAN BE PRESSED AGAINST STOPPER 106
S42
RECORD PATTERN ALL-1 ALONG ONE FULL CIRCLE
S43
STORE DIGITIZED REPRODUCED AMPLITUDE IN MEMORY 107g
S45
CHANGE VCM CURRENT 109, MOVING HEAD IN STEPWISE MANNER
S44
HAS HEAD REACHED POSITION 501-m ?
NO
YES
S46
MOVE HEAD TO 401-m
S47
STORE DIGITIZED REPRODUCED AMPLITUDE IN MEMORY 107g
S48
CHANGE VCM CURRENT 109, MOVING HEAD IN STEPWISE MANNER
S49
HAS HEAD REACHED POSITION 501-m ?
NO
YES
S50
CALCULATE R/W OFFSET, TRACK WIDTH FROM PROFILE OF REPRODUCED SIGNAL
END

FIG.5

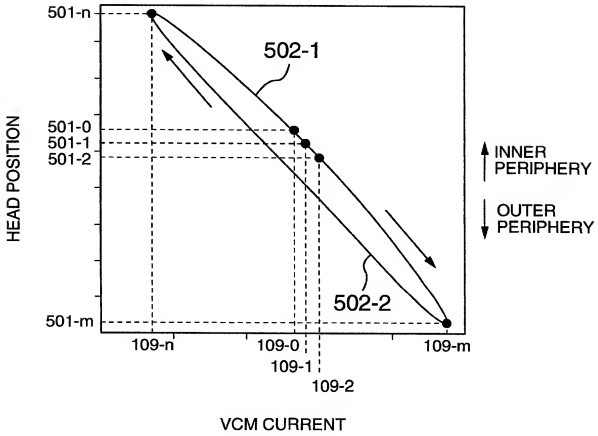

501-n
502-1
501-0
501-1
501-2
HEAD POSITION
INNER PERIPHERY
OUTER PERIPHERY
502-2
501-m
109-n
109-0
109-1
109-2
109-m
VCM CURRENT

FIG.6

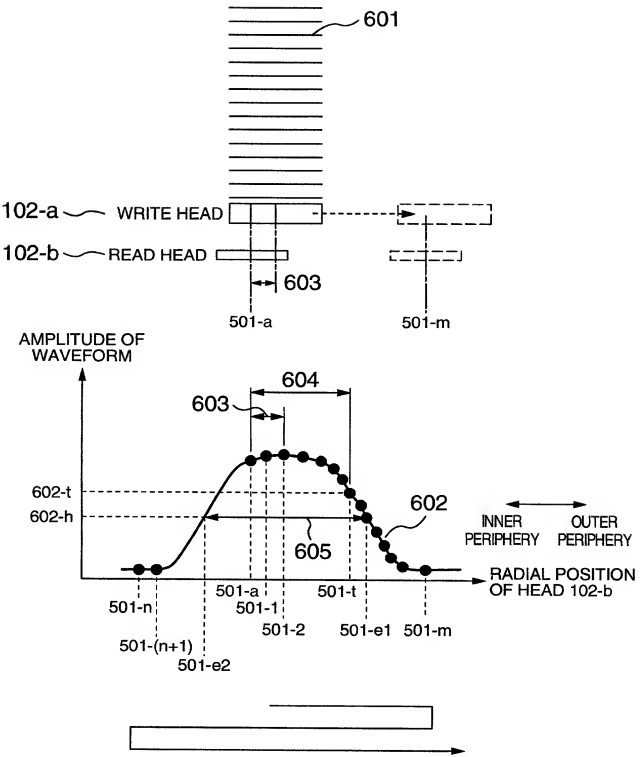

601
102-a
WRITE HEAD
102-b
READ HEAD
603
501-a
501-m
AMPLITUDE OF WAVEFORM
604
603
602-t
602-h
602
605
INNER PERIPHERY
OUTER PERIPHERY
RADIAL POSITION OF HEAD 102-b
501-n
501-(n+1)
501-e2
501-a
501-1
501-2
501-t
501-e1
501-m

FIG.7

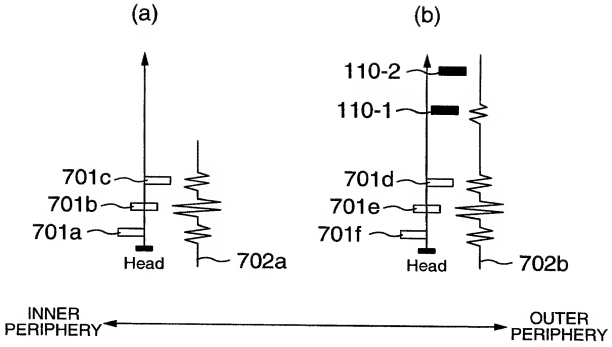

(a)
(b)
110-2
110-1
701c
701b
701a
Head
702a
701d
701e
701f
Head
702b
INNER PERIPHERY
OUTER PERIPHERY

FIG.8

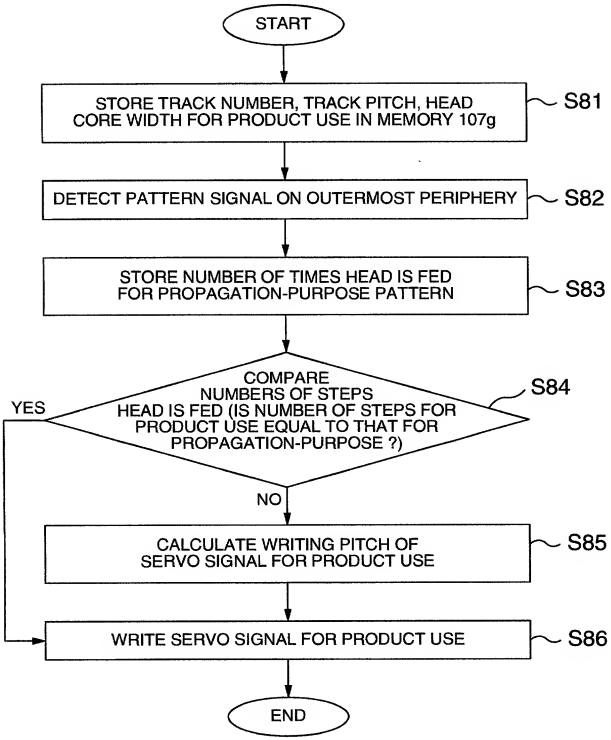
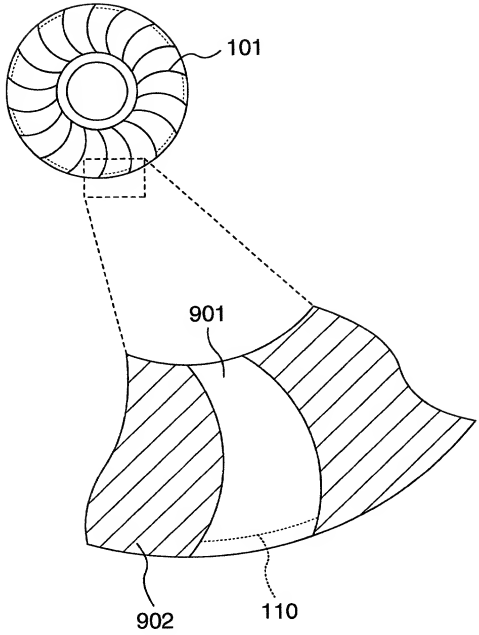

START
STORE TRACK NUMBER, TRACK PITCH, HEAD CORE WIDTH FOR PRODUCT USE IN MEMORY 107g
S81
DETECT PATTERN SIGNAL ON OUTERMOST PERIPHERY
S82
STORE NUMBER OF TIMES HEAD IS FED FOR PROPAGATION-PURPOSE PATTERN
S83
COMPARE NUMBERS OF STEPS HEAD IS FED (IS NUMBER OF STEPS FOR PRODUCT USE EQUAL TO THAT FOR PROPAGATION-PURPOSE ?)
S84
YES
NO
CALCULATE WRITING PITCH OF SERVO SIGNAL FOR PRODUCT USE
S85
WRITE SERVO SIGNAL FOR PRODUCT USE
S86
END

FIG.9



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